

Bharathram Ganapathisubramani

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151
papers

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h-index

55
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163
ext. papers

4,416
ext. citations

3.2
avg, IF

5.95
L-index

#	Paper	IF	Citations
151	Characteristics of vortex packets in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2003 , 478, 35-46	3.7	335
150	Effects of upstream boundary layer on the unsteadiness of shock-induced separation. <i>Journal of Fluid Mechanics</i> , 2007 , 585, 369-394	3.7	205
149	Investigation of large-scale coherence in a turbulent boundary layer using two-point correlations. <i>Journal of Fluid Mechanics</i> , 2005 , 524, 57-80	3.7	168
148	Large-scale motions in a supersonic turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2006 , 556, 271-306	3.7	125
147	Low-frequency dynamics of shock-induced separation in a compression ramp interaction. <i>Journal of Fluid Mechanics</i> , 2009 , 636, 397-425	3.7	123
146	Three-dimensional conditional structure of a high-Reynolds-number turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2011 , 673, 255-285	3.7	115
145	Amplitude and frequency modulation in wall turbulence. <i>Journal of Fluid Mechanics</i> , 2012 , 712, 61-91	3.7	113
144	Investigation of three-dimensional structure of fine scales in a turbulent jet by using cinematographic stereoscopic particle image velocimetry. <i>Journal of Fluid Mechanics</i> , 2008 , 598, 141-175	3.7	98
143	Optimal mode decomposition for unsteady flows. <i>Journal of Fluid Mechanics</i> , 2013 , 733, 473-503	3.7	97
142	Dual-plane PIV technique to determine the complete velocity gradient tensor in a turbulent boundary layer. <i>Experiments in Fluids</i> , 2005 , 39, 222-231	2.5	84
141	Particle image velocimetry study of fractal-generated turbulence. <i>Journal of Fluid Mechanics</i> , 2012 , 711, 306-336	3.7	79
140	Performance and mechanism of sinusoidal leading edge serrations for the reduction of turbulence-airfoil interaction noise. <i>Journal of Fluid Mechanics</i> , 2017 , 818, 435-464	3.7	75
139	Determination of complete velocity gradient tensor by using cinematographic stereoscopic PIV in a turbulent jet. <i>Experiments in Fluids</i> , 2007 , 42, 923-939	2.5	75
138	Effects of spanwise spacing on large-scale secondary flows in rough-wall turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2015 , 774,	3.7	74
137	Spectral scaling in boundary layers and pipes at very high Reynolds numbers. <i>Journal of Fluid Mechanics</i> , 2015 , 771, 303-326	3.7	70
136	Axisymmetric turbulent wakes with new nonequilibrium similarity scalings. <i>Physical Review Letters</i> , 2013 , 111, 144503	7.4	68
135	Experimental investigation of vortex properties in a turbulent boundary layer. <i>Physics of Fluids</i> , 2006 , 18, 055105	4.4	65

134	Effect of turbulence on the wake of a wall-mounted cube. <i>Journal of Fluid Mechanics</i> , 2016 , 804, 513-530	3.7	48
133	Amplification of enstrophy in the far field of an axisymmetric turbulent jet. <i>Journal of Fluid Mechanics</i> , 2010 , 651, 483-502	3.7	46
132	Turbulent separation upstream of a forward-facing step. <i>Journal of Fluid Mechanics</i> , 2013 , 724, 284-304	3.7	44
131	Effects of frontal and plan solidities on aerodynamic parameters and the roughness sublayer in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2015 , 782, 541-566	3.7	41
130	Performance augmentation mechanism of in-line tandem flapping foils. <i>Journal of Fluid Mechanics</i> , 2017 , 827, 484-505	3.7	40
129	Characteristics of turbulent boundary layers over smooth surfaces with spanwise heterogeneities. <i>Journal of Fluid Mechanics</i> , 2018 , 838, 516-543	3.7	39
128	The energy cascade in near-field non-homogeneous non-isotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2015 , 771, 676-705	3.7	39
127	Leading- and trailing-edge effects on the aeromechanics of membrane aerofoils. <i>Journal of Fluids and Structures</i> , 2013 , 38, 107-126	3.1	38
126	An assessment of the ship drag penalty arising from light calcareous tubeworm fouling. <i>Biofouling</i> , 2016 , 32, 451-64	3.3	36
125	Aerodynamic performance of the feathered dinosaur Microraptor and the evolution of feathered flight. <i>Nature Communications</i> , 2013 , 4, 2489	17.4	35
124	Evolution of the velocity-gradient tensor in a spatially developing turbulent flow. <i>Journal of Fluid Mechanics</i> , 2014 , 756, 252-292	3.7	33
123	Experimental estimation of fluctuating velocity and scalar gradients in turbulence. <i>Experiments in Fluids</i> , 2012 , 53, 925-942	2.5	33
122	The evolution of large-scale motions in turbulent pipe flow. <i>Journal of Fluid Mechanics</i> , 2015 , 779, 701-715	3.7	32
121	Pressure from particle image velocimetry for convective flows: a Taylor's hypothesis approach. <i>Measurement Science and Technology</i> , 2013 , 24, 024002	2	32
120	Interactions of large-scale free-stream turbulence with turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2016 , 802, 79-107	3.7	32
119			31
118	Aspect-Ratio Effects on Aeromechanics of Membrane Wings at Moderate Reynolds Numbers. <i>AIAA Journal</i> , 2015 , 53, 780-788	2.1	29
117	Development of turbulent boundary layers past a step change in wall roughness. <i>Journal of Fluid Mechanics</i> , 2016 , 795, 494-523	3.7	29

116	Drag and near wake characteristics of flat plates normal to the flow with fractal edge geometries. <i>Fluid Dynamics Research</i> , 2013 , 45, 061406	1.2	28
115	The effects of resolution and noise on kinematic features of fine-scale turbulence. <i>Experiments in Fluids</i> , 2011 , 51, 1417-1437	2.5	28
114	Aeroacoustic Performance of Fractal Spoilers. <i>AIAA Journal</i> , 2012 , 50, 2695-2710	2.1	27
113	Time evolution of uniform momentum zones in a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2018 , 842, 554-590	3.7	26
112	Characterisation of drag and wake properties of canopy patches immersed in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2016 , 798, 27-49	3.7	26
111	Aeromechanics of membrane and rigid wings in and out of ground-effect at moderate Reynolds numbers. <i>Journal of Fluids and Structures</i> , 2016 , 62, 318-331	3.1	25
110	Full-field pressure from snapshot and time-resolved volumetric PIV. <i>Experiments in Fluids</i> , 2016 , 57, 1	2.5	25
109	Geometrical influence on vortex shedding in turbulent axisymmetric wakes. <i>Physics of Fluids</i> , 2015 , 27, 035103	4.4	24
108	The instantaneous structure of secondary flows in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2019 , 862, 845-870	3.7	23
107	An Image-Based Model of Fluid Flow Through Lymph Nodes. <i>Bulletin of Mathematical Biology</i> , 2016 , 78, 52-71	2.1	22
106	Denosing of time-resolved PIV for accurate measurement of turbulence spectra and reduced error in derivatives. <i>Experiments in Fluids</i> , 2012 , 53, 1561-1575	2.5	21
105	Frequency/wavenumber mapping in turbulent shear flows. <i>Journal of Fluid Mechanics</i> , 2015 , 783, 166-190	3.7	20
104	Turbulent Flow Over Large Roughness Elements: Effect of Frontal and Plan Solidity on Turbulence Statistics and Structure. <i>Boundary-Layer Meteorology</i> , 2018 , 167, 99-121	3.4	20
103	On the fluid-structure interaction of flexible membrane wings for MAVs in and out of ground-effect. <i>Journal of Fluids and Structures</i> , 2017 , 70, 214-234	3.1	19
102	The four-flipper swimming method of plesiosaurs enabled efficient and effective locomotion. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017 , 284,	4.4	19
101	Pressure from 2D snapshot PIV. <i>Experiments in Fluids</i> , 2019 , 60, 32	2.5	18
100	Statistical properties of streamwise velocity in a supersonic turbulent boundary layer. <i>Physics of Fluids</i> , 2007 , 19, 098108	4.4	17
99	Effect of length of two-dimensional obstacles on characteristics of separation and reattachment. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2018 , 178, 38-48	3.7	16

98	The interaction between strain-rate and rotation in shear flow turbulence from inertial range to dissipative length scales. <i>Physics of Fluids</i> , 2011 , 23, 061704	4.4	16
97	Effects of Upstream Coherent Structures on Low-Frequency Motion of Shock-Induced Turbulent Separation 2007 ,		15
96	Planar imaging measurements to study the effect of spanwise structure of upstream turbulent boundary layer on shock induced separation 2006 ,		15
95	Influence of three-dimensionality on propulsive flapping. <i>Journal of Fluid Mechanics</i> , 2020 , 886,	3.7	14
94	Effects of heterogeneous surface geometry on secondary flows in turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2020 , 886,	3.7	14
93	The convection of large and intermediate scale fluctuations in a turbulent mixing layer. <i>Physics of Fluids</i> , 2013 , 25, 125105	4.4	14
92	Simultaneous skin friction and velocity measurements in high Reynolds number pipe and boundary layer flows. <i>Journal of Fluid Mechanics</i> , 2019 , 871, 377-400	3.7	13
91	Amplitude and frequency modulation of the small scales in a jet. <i>Journal of Fluid Mechanics</i> , 2015 , 772, 756-783	3.7	13
90	Investigation of three dimensionality in the near field of a round jet using stereo PIV. <i>Journal of Turbulence</i> , 2002 , 3, N16	2.1	13
89	Micro vortex generator control of axisymmetric high-speed laminar boundary layer separation. <i>Shock Waves</i> , 2015 , 25, 521-533	1.6	12
88	Universal scaling law for drag-to-thrust wake transition in flapping foils. <i>Journal of Fluid Mechanics</i> , 2019 , 872,	3.7	11
87	Entrainment effects in periodic forcing of the flow over a backward-facing step. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	11
86	Mechanisms of airfoil noise near stall conditions. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	11
85	Skin-friction measurements in a turbulent boundary layer under the influence of free-stream turbulence. <i>Experiments in Fluids</i> , 2017 , 58, 1	2.5	10
84	Concurrent scale interactions in the far-field of a turbulent mixing layer. <i>Physics of Fluids</i> , 2014 , 26, 125106	4.4	10
83	Statistical structure of momentum sources and sinks in the outer region of a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2008 , 606, 225-237	3.7	10
82	Structure of high and low shear-stress events in a turbulent boundary layer. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	10
81	Robust features of a turbulent boundary layer subjected to high-intensity free-stream turbulence. <i>Journal of Fluid Mechanics</i> , 2018 , 851, 416-435	3.7	9

80	Tailoring incoming shear and turbulence profiles for lab-scale wind turbines. <i>Wind Energy</i> , 2017 , 20, 2021-2035	3.4	9
79	Quantification and adjustment of pixel-locking in particle image velocimetry. <i>Experiments in Fluids</i> , 2015 , 56, 1	2.5	9
78	Toluene-based planar laser-induced fluorescence imaging of temperature in hypersonic flows. <i>Experiments in Fluids</i> , 2015 , 56, 1	2.5	9
77	Edge effects on the fluttering characteristics of freely falling planar particles. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	9
76	Modelling high Reynolds number wall-turbulence interactions in laboratory experiments using large-scale free-stream turbulence. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017 , 375,	3	8
75	Effects of vortex-induced velocity on the development of a synthetic jet issuing into a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2019 , 870, 651-679	3.7	8
74	A comparative study of the velocity and vorticity structure in pipes and boundary layers at friction Reynolds numbers up to. <i>Journal of Fluid Mechanics</i> , 2019 , 869, 182-213	3.7	8
73	Axisymmetric flare-induced separation of high-speed transitional boundary layers 2012 ,		8
72	Experiments in Unsteady Forcing of Mach 2 Shock Wave/Boundary Layer Interactions 2006 ,		8
71	Deflected wake interaction of tandem flapping foils. <i>Journal of Fluid Mechanics</i> , 2020 , 903,	3.7	8
70	Study of the circularity effect on drag of disk-like particles. <i>International Journal of Multiphase Flow</i> , 2019 , 110, 189-197	3.6	8
69	An alternative floating element design for skin-friction measurement of turbulent wall flows. <i>Experiments in Fluids</i> , 2018 , 59, 1	2.5	8
68	Trajectory of a synthetic jet issuing into high-Reynolds-number turbulent boundary layers. <i>Journal of Fluid Mechanics</i> , 2018 , 856, 531-551	3.7	8
67	Using high resolution X-ray computed tomography to create an image based model of a lymph node. <i>Journal of Theoretical Biology</i> , 2018 , 449, 73-82	2.3	7
66	Effect of roughness-induced disturbances on axisymmetric hypersonic laminar boundary layer 2013 ,		7
65	The effects of free-stream turbulence on the performance of a model wind turbine. <i>Journal of Renewable and Sustainable Energy</i> , 2021 , 13, 023304	2.5	7
64	Vectoring of parallel synthetic jets: a parametric study. <i>Journal of Fluid Mechanics</i> , 2016 , 804, 467-489	3.7	7
63	Laboratory experiments on the temporal decay of homogeneous anisotropic turbulence. <i>Journal of Fluid Mechanics</i> , 2019 , 862, 99-127	3.7	7

62	Near-wake characteristics of rigid and membrane wings in ground effect. <i>Journal of Fluids and Structures</i> , 2018 , 80, 199-216	3.1	7
61	Three dimensional wakes of freely falling planar polygons. <i>Experiments in Fluids</i> , 2019 , 60, 1	2.5	6
60	Aeromechanics of Membrane Wings in Ground-Effect 2015 ,		6
59	Advances in 3D velocimetry. <i>Measurement Science and Technology</i> , 2013 , 24, 020301	2	6
58	Investigation of turbulent separation in a forward-facing step flow. <i>Journal of Physics: Conference Series</i> , 2011 , 318, 022031	0.3	6
57	Cinematographic Planar Imaging of a Mach 2 Shock Wave/Turbulent Boundary Layer Interaction 2005 ,		6
56	Wakes of wall-bounded turbulent flows past patches of circular cylinders. <i>Journal of Fluid Mechanics</i> , 2020 , 892,	3.7	6
55	Spatial spectral characteristics of momentum transport in a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2018 , 836, 599-634	3.7	6
54	Full-Field Surface Pressure Reconstruction Using the Virtual Fields Method. <i>Experimental Mechanics</i> , 2019 , 59, 1203-1221	2.6	5
53	Influence of internal orifice geometry on synthetic jet performance. <i>Experiments in Fluids</i> , 2019 , 60, 1	2.5	5
52	PIV measurements of convection velocities in a turbulent mixing layer. <i>Journal of Physics: Conference Series</i> , 2011 , 318, 052038	0.3	5
51	Coherent structures in transitional pipe flow. <i>Physical Review Fluids</i> , 2016 , 1,	2.8	5
50	Law of the wall for small-scale streamwise turbulence intensity in high-Reynolds-number turbulent boundary layers. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	5
49	On the decay of dispersive motions in the outer region of rough-wall boundary layers. <i>Journal of Fluid Mechanics</i> , 2019 , 862,	3.7	4
48	Turbulent Boundary Layers Over Multiscale Rough Patches. <i>Boundary-Layer Meteorology</i> , 2019 , 172, 1-16	3.4	4
47	Reconstruction of surface-pressure fluctuations using deflectometry and the virtual fields method. <i>Experiments in Fluids</i> , 2020 , 61, 1	2.5	4
46	Disks settling in turbulence. <i>Journal of Fluid Mechanics</i> , 2020 , 883,	3.7	4
45	Volumetric flow characterisation of a rectangular orifice impinging synthetic jet with single-camera light-field PIV. <i>Experimental Thermal and Fluid Science</i> , 2021 , 123, 110327	3	4

44	Establishment Times of Hypersonic Shock-Wave/Boundary-Layer Interactions in Intermittent Facilities. <i>AIAA Journal</i> , 2017 , 55, 2875-2887	2.1	3
43	PIV-based pressure estimation in the canopy of urban-like roughness. <i>Experiments in Fluids</i> , 2020 , 61, 1	2.5	3
42	Aero-Acoustic Performance of Fractal Spoilers 2011 ,		3
41	Effective visualization of stereo particle image velocimetry vector fields of a turbulent boundary layer. <i>Journal of Turbulence</i> , 2003 , 4,	2.1	3
40	The near-field of a lab-scale wind turbine in tailored turbulent shear flows. <i>Renewable Energy</i> , 2020 , 149, 735-748	8.1	3
39	Non-type behaviour of roughness when in-plane wavelength approaches the boundary layer thickness. <i>Journal of Fluid Mechanics</i> , 2021 , 911,	3.7	3
38	Data-driven sparse reconstruction of flow over a stalled aerofoil using experimental data. <i>Data-Centric Engineering</i> , 2021 , 2,	2.6	3
37	Wind resource assessment in heterogeneous terrain. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017 , 375,	3	2
36	Effect of isolated roughness element height on high-speed laminar-turbulent transition. <i>Journal of Fluid Mechanics</i> , 2017 , 818,	3.7	2
35	Comparison between object and image plane cross-correlation for stereoscopic PIV in the presence of pixel locking. <i>Experiments in Fluids</i> , 2020 , 61, 1	2.5	2
34	Effects of aspect ratio on fluid-structure interactions in membrane wings 2014 ,		2
33	On the Interfoil Spacing and Phase Lag of Tandem Flapping Foil Propulsors. <i>Journal of Ship Production and Design</i> , 2017 , 33, 276-282	0.3	2
32	Development of a rapid plasma decontamination system for decontamination and reuse of filtering facepiece respirators. <i>AIP Advances</i> , 2021 , 11, 105311	1.5	2
31	On the Effects of Surface Morphology on the Structure of Wall-Turbulence. <i>Springer Proceedings in Physics</i> , 2016 , 149-154	0.2	2
30	Characteristics of drag due to streamwise inhomogeneous roughness. <i>Ocean Engineering</i> , 2021 , 223, 108632	3.9	2
29	Turbulent boundary-layer flow over regular multiscale roughness. <i>Journal of Fluid Mechanics</i> , 2021 , 917,	3.7	2
28	Effects of aspect ratio on rolling and twisting foils. <i>Physical Review Fluids</i> , 2021 , 6,	2.8	2
27	Leading edge serrations for the reduction of aerofoil self-noise at low angle of attack, pre-stall and post-stall conditions. <i>International Journal of Aeroacoustics</i> , 2021 , 20, 130-156	2.1	2

26	Scalings for rectangular synthetic jet trajectory in a turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2021 , 915,	3.7	2
25	Aerodynamic Performance of Electro-Active Acrylic Membrane Wings. <i>AIAA Journal</i> , 2018 , 56, 4243-4260.	2.1	2
24	Aerodynamic Step Input Response of Electro-Active Membrane Wings 2017 ,		1
23	Response of the temporal turbulent boundary layer to decaying free-stream turbulence. <i>Journal of Fluid Mechanics</i> , 2020 , 896,	3.7	1
22	Aero-electro-mechanical Coupling of Electro-Active Membrane Wings 2016 ,		1
21	The Classification and Composition of Fine Scale Eddies in a Turbulent Jet 2009 ,		1
20	Interactive Poster: Illustrating Different Convection Velocities of Turbulent Flow		1
19	Spatial characteristics of a zero-pressure-gradient turbulent boundary layer in the presence of free-stream turbulence. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	1
18	Characteristics of sources and sinks of momentum in a turbulent boundary layer. <i>Physical Review Fluids</i> , 2018 , 3,	2.8	1
17	Fin sweep angle does not determine flapping propulsive performance		1
16	Surface Pressure Reconstruction from Phase Averaged Deflectometry Measurements Using the Virtual Fields Method. <i>Experimental Mechanics</i> , 2020 , 60, 379-392	2.6	1
15	Interaction and vectoring of parallel rectangular twin jets in a turbulent boundary layer. <i>Physical Review Fluids</i> , 2021 , 6,	2.8	1
14	The evolution of large-scale motions in turbulent pipe flow [CORRIGENDUM]. <i>Journal of Fluid Mechanics</i> , 2016 , 795, 973-974	3.7	1
13	Revisiting rough-wall turbulent boundary layers over sand-grain roughness. <i>Journal of Fluid Mechanics</i> , 2021 , 911,	3.7	1
12	Effect of Leading Edge serrations in reducing aerofoil noise near stall conditions 2018 ,		1
11	Dynamic mode decomposition-based reconstructions for fluid-structure interactions: An application to membrane wings. <i>Journal of Fluids and Structures</i> , 2021 , 104, 103315	3.1	1
10	The Mean Velocity of the Near-Field of a Lab-Scale Wind Turbine in Tailored Turbulent Shear Flows. <i>Springer Proceedings in Physics</i> , 2019 , 317-322	0.2	0
9	The effect of cleaning and repainting on the ship drag penalty. <i>Biofouling</i> , 2021 , 37, 372-386	3.3	0

8	Fin sweep angle does not determine flapping propulsive performance. <i>Journal of the Royal Society Interface</i> , 2021 , 18, 20210174	4.1	0
7	The far wake of porous disks and a model wind turbine: Similarities and differences assessed by hot-wire anemometry. <i>Journal of Renewable and Sustainable Energy</i> , 2022 , 14, 023304	2.5	0
6	Unsteady forcing of turbulence by a randomly actuated impeller array. <i>Experiments in Fluids</i> , 2022 , 63, 1	2.5	0
5	Interaction Layer Between a Turbulent Boundary Layer and Free-Stream Turbulence. <i>Springer Proceedings in Physics</i> , 2016 , 325-332	0.2	
4	From Time to Space and Back: Convection and Wave Velocities in Turbulent Shear Flows. <i>Springer Proceedings in Physics</i> , 2016 , 47-54	0.2	
3	Concurrent Scale Interactions in the Far-Field of a Turbulent Mixing Layer. <i>Springer Proceedings in Physics</i> , 2016 , 55-58	0.2	
2	Characteristics of Recirculation Regions on Ribs of Varying Length. <i>Springer Proceedings in Physics</i> , 2016 , 213-221	0.2	
1	Tailoring wind turbine wake models to incoming free-stream turbulence. <i>Journal of Physics: Conference Series</i> , 2022 , 2265, 022076	0.3	